AMENDMENTS TO THE CLAIMS

Claim 1 (previously presented) A transductionally and transcriptionally modified adenoviral vector with improved efficacy at the target site and reduced transgene expression at the non-target site *in vivo* compared to an adenoviral vector without said transductional and said transcriptional modification comprising:

(i) a targeting component that targets said modified adenoviral vector to specific target cells, wherein said targeting component comprises a bi-specific antibody conjugate linking a Fab fragment of an anti-Ad5 knob antibody with an anti-angiotensin converting enzyme antibody, wherein an angiotensin converting enzyme molecule is expressed on said target cells; and

(ii) a tissue specific promoter that drives the expression of a transgene carried by said modified adenoviral vector in said target cells.

Claims 2-3 (canceled)

Claim 4 (previously presented) The modified adenoviral vector of claim 1, wherein said anti-Ad5 knob antibody is 1D6.14 and said anti-angiotensin converting enzyme antibody is 9B9.

Claim 5 (previously presented) The modified adenoviral vector of claim 4, wherein said tissue-specific promoter is vascular endothelial growth factor type 1 receptor promoter.

Claim 6 (previously presented) The modified adenoviral vector of claim 5, wherein said target cells are pulmonary endothelial cells.

Claim 7 (previously presented) A method of increasing targeting specificity to target cells and reducing transgene expression in non-target cells by an adenoviral vector, comprising the step of:

contacting target cells with an adenoviral vector comprising (i) a targeting component that targets said vector to specific target cells, wherein said targeting component comprises a bi-specific antibody conjugate linking a Fab fragment of an anti-Ad5 knob antibody with an anti-angiotensin converting enzyme antibody, wherein an angiotensin converting enzyme molecule is expressed on said target cells, and (ii) a tissue-specific promoter that drives the expression of a transgene carried by said vector in said target cells, wherein said adenoviral vector has increased targeting specificity to said target cells and results in reduced transgene expression in non-target cells as compared to an adenoviral vector without said targeting component and said tissue-specific promoter.

Claims 8-9 (canceled)

Claim 10 (previously presented) The method of claim 7, wherein said anti-Ad5 antibody is 1D6.14 and said anti-angiotensin converting enzyme antibody is 9B9.

Claim 11 (previously presented) The method of claim 10, wherein the tissue-specific promoter of said adenoviral vector is vascular endothelial growth factor type I receptor promoter.

Claim 12 (original) The method of claim 11, wherein the target cells are pulmonary endothelial cells.